DEVELOPMENT OF A NATIONAL RADIOTHERAPY NETWORK (SUD/6/020) E2 New

MODEL PROJECT

CORE FINANCING

YEAR	Experts		Group Activity	Equipment	Fellowships		Scientific Visits		Group Training	Sub-Contracts	Misc. Comp.	TOTAL
	m/d	US $	US $	US $	m/d	US $	m/d	US $	US $	US $	US $	US $
1997	0.0	0	0	0	0/0	0	0/0	0	0	0	0	0
1998	1.0	13,950	0	160,000	23/0	75,900	0/0	0	0	0	0	249,850
1999	2.0	29,400	0	235,000	11/0	37,950	0/0	0	0	0	0	302,350
2000	0.14	7,210	0	8,000	3/0	10,800	0/0	0	0	0	0	26,010

First Year Approved: 1997

OBJECTIVES: This project addresses the development goal of improving health care for cancer patients and making it available nationwide. The specific project objectives are to bring brachytherapy into routine use at the Radiation and Isotope Centre, Khartoum, and to introduce teletherapy at a satellite centre in Gezira.

BACKGROUND: The Radiation and Isotope Centre, Khartoum (RICK) operates Sudan's only radiotherapy centre for cancer treatment. However, this facility can serve only about 10% of the current patient load. The waiting list for treatment is already long, and about 2600 new cases occur each year. Unfortunately, because most cases reaching the Centre have progressed beyond stage one, repeated treatments are often necessary. Only the small minority of wealthy patients can avail themselves of treatment abroad. To alleviate the situation, the Government has begun to implement a long term plan for a national radiotherapy network. The plan calls for RICK to serve as a centre of excellence, providing brachytherapy and operating a training facility. The network's second centre, located 200 km from Khartoum, in Gezira, will give a mostly rural population of five million access to teletherapy. Two additional centres are foreseen later. This expansion of radiotherapy facilities is consonant with the Country Programme Framework. University programmes and institutes can provide trained personnel. Curricula are well established at the baccalaureate level in radiotherapy and nuclear medicine, as well as in electronics. There is an MSc programme in radiation and health physics. Short specialty training programmes are available. Through previous Agency assistance, both RICK and the Gezira Centre operate radioimmunoassay and nuclear medicine facilities, and RICK offers radiopharmacy services in addition.

PROJECT PLAN: Project implementation will be in the hands of the Institute of Nuclear Medicine, Gezira University, and RICK. The main project activities include: (i) in-country training for medical physicists, radiotherapists, and technicians; (ii) study abroad for key senior personnel; (iii) installation at RICK of a brachytherapy and dosimetry system; (iv) completion of a building to house the teletherapy unit in Gezira by end of 1997; and (v) installation of a teletherapy unit at the Gezira Centre. A national Steering Committee will supervise implementation and ensure co-ordination among the participating institutions. The major project outputs will consist of (i) a cadre trained in modern practice of brachytherapy and teletherapy; (ii) a fully functional medical unit for planning and delivering brachytherapy at RICK, and (iii) a fully functional medical unit for planning and delivering teletherapy at Gezira.

NATIONAL COMMITMENT: The national authorities will provide buildings to house the equipment and suitable personnel for training in its use. Existing space will meet requirements at RICK after refurbishing; in Gezira, the necessary new construction is scheduled for completion by the end of 1997. The participating institutions will defray operating and maintenance costs to ensure sustainability. The national Steering Committee will take responsibility for timely implementation.

AGENCY INPUT: The Agency will provide brachytherapy and teletherapy equipment, along with the associated dose planning and dosimetry systems; expertise and expert services in radiotherapy and medical physics; and assistance with training in the country and abroad of medical physicists, radiotherapists, and technicians.

PROJECT IMPACT: The national plan calls for the development of two additional Centres, at Kordofan and Darfour, in Western Sudan. When it is complete, the resulting network will make radiotherapy accessible to nearly the entire population and contribute greatly to improved management of cancer cases. An associated benefit will be enhancement of opportunities for training and research in radiotherapy at both the baccalaureate and post-graduate levels, leading to improved recruitment and retention of the trained personnel the network will require to maximize delivery of treatment.